

SA Training Script Slide 1

Welcome to Sustainable Acquisition training. This one-time training is required for all employees.

OUTLINE

- What is Sustainable Acquisition?
- Why is this training required?
- * Responsibilities
- Exceptions
- * Types of SA products
- * Resources

Slide 2

This training will explain the following:

What is Sustainable Acquisition?

Why is this training required?

What are the responsibilities of various positions or groups within the lab?

What are some exceptions to purchasing environmentally preferred products?

What types of Sustainable Acquisition products are available?

Where can you find more information?

WHAT IS SA?

* Sustainable Acquisition is the acquisition of products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

Slide 3

Sustainable Acquisition (or SA) is the acquisition of products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

REQUIREMENTS

- × E.O. 13514
 - + Federal Leadership in Environmental, Energy, and Economic Performance
- FESHM Chapter 5011
 - + Fermilab's Sustainable Acquisition Program

Slide 4

The SA program was promulgated through a series of Executive Orders; the most current Executive Order is EO 13514, which requires federal agencies to show leadership in environmental performance. Under this executive order, all federal agencies must reduce their greenhouse gas emissions, integrate sustainable building design into all new construction, reduce water consumption, continue with pollution prevention and waste reduction efforts, and ensure that 95% or greater of all new contract actions, task orders and delivery orders for products and services are environmentally preferable, where such products and services meet agency performance requirements.

FESHM chapter 5011 – Fermilab's Sustainable Acquisition Program describes how Fermilab implements the sustainable acquisition requirements of EO13514.

RESPONSIBILITIES

- Business Services Procurement Group:
 - + Continue existing and forge new relationships with vendors that provide SA products and services.
- Construction Coordinators/Task Managers/Service Coordinators:
 - + Ensure that the specifications of the contract are carried out by the subcontractor (i.e. ensure that specified SA items are used).
- D/S/C Heads:
 - + Ensure that >95% of all new contracts are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non- or less-toxic alternatives, where such products and services meet D/S/C performance requirements.

Slide 5

Certain responsibilities are assigned to employees or groups within the lab. Business Services Procurement Department is responsible for continuing existing and forging new relationships with vendors that provide SA products and services. Construction Coordinators, Task Managers and Service Coordinators will ensure that the specifications of contracts they oversee are carried out by the subcontractor (for example, ensure that specified SA items are used).

Division, Section & Center Heads will ensure that at least 95% of their organization's new contracts are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non- or less-toxic alternatives, where such products and services meet the Division/Section/Center performance requirements.

RESPONSIBILITIES - CONTINUED

- ES&H Director:
 - + Ensure that SA resources are available via the ES&H WebPages and FESHM 5011.
- * Employees:
 - + Specify SA items in service and product contracts. In addition, purchase SA products any time a SA product is available and meets the purchaser's requirements.
 - + Complete the SA training.
- **▼** D/S/C Environmental Officers:
 - + Provide guidance for all employees regarding Sustainable Acquisition.

Slide 6

Responsibilities continued...

The ES&H Director must ensure that SA resources are available to employees via the ES&H Section WebPages and FESHM 5011.

Employees are required to specify SA items in service and product contracts. In addition, employees should purchase SA products any time an SA product is available and meets the purchaser's requirements. Employees must also complete the SA training. Division, Section and Center Environmental Officers will provide guidance for all employees regarding Sustainable Acquisition.

WHY BUY SA?

- The Federal Government purchases more than \$200 billion worth of products and services each year.
- Purchasing environmentally preferable products or services will do one or more of the following:
 - + Minimize the consumption of resources, energy and water
 - + Prevent the creation of solid waste, air pollution or water pollution
 - + Minimize or eliminate the use of materials or processes which compromise the environment (global warming, ozone depletion and acid rain)
 - Promote the use of non-toxic substances and avoid toxic materials or processes

Slide 7

You may be asking yourself: Why should we buy SA products? Well, the Federal Government purchases more than \$200 billion worth of products and services each year. If we purchase these environmentally preferable products or services, we can:

Minimize the consumption of resources, energy and water;
Prevent the creation of solid waste, air pollution and water pollution;
Minimize or eliminate the use of materials or processes which compromise the environment (global warming, ozone depletion and acid rain); and
Promote the use of non-toxic substances and avoid toxic materials or processes.

WHY USE SA?

- Recycled aluminum cans require 95% less energy to manufacture.
- Using 1 ton of recycled paper saves 20 trees and 7,000 gallons of water.
- ★ 100 Energy Star computers and monitors can save \$10,000 in energy costs over 5 years.
- Correlation between improved health and working environment when using certain SA products.

Slide 8

What's so great about SA products? Did you know that: Recycled aluminum cans require 95% less energy to manufacture? Using 1 ton of recycled paper can save 20 trees and 7,000 gallons of water? Using 100 Energy Star computers and monitors can save \$10,000 in energy costs over 5 years?

Also, there is a correlation between improved health and the working environment when using certain SA products.

EXCEPTIONS

- * Fermilab employees must purchase designated SA products unless the product:
 - + Is not life cycle cost effective or exceeds 110% of the price of the non-sustainable item.
 - + Will not meet reasonable performance standards
 - + Is unavailable within a reasonable timeframe at a sufficient level of competition
- * However, there are NO exceptions for paper
 - + Fermilab's Stock Room only supplies paper containing 30% recycled material.

Slide 9

The following exceptions will be allowed when purchasing non-SA products: If the product is not life cycle cost effective or exceeds 110% of the price of the non-sustainable item,

If the product will not meet reasonable performance standards, Or if it is unavailable within a reasonable timeframe at a sufficient level of competition There are NO exceptions when purchasing paper. All paper must meet SA specifications.

CONTRACT REQUIREMENTS

E.O. 13514 requires that all federal agencies include in 95% of their new contracts (and non-exempt contract modifications) a stipulation that items purchased will be SA products.

Slide 10

Contract requirements

The executive order requires that all federal agencies include in 95% of their new contracts a stipulation that items purchased will be SA products.

TYPES OF PRODUCTS AVAILABLE

- * Biobased products
- * Recycled content products
- * Alternative fuels/vehicles
- Energy/water efficient products
- Non-ozone depleting products

Slide 12

Types of SA products available include:
Biobased
Recycled content
Alternative fuels/vehicles
Energy/water efficient
Non-ozone depleting

BIOBASED PRODUCTS

Biobased products are commercial or industrial products that are composed in whole, or in significant part, of biological products or renewable domestic agricultural materials or forestry materials.



Slide 13

Biobased products are commercial or industrial products that are composed in whole, or in significant part, of biological products or renewable domestic agricultural materials or forestry materials.

BIOBASED PRODUCTS

- Biobased product categories include:
 - + Adhesives & sealants
 - + Construction materials—caulk, insulation, carpet, roofing sealant
 - + Fibers, papers & packaging
 - + Fuel additives
 - + Landscaping materials—compost and fertilizer
 - + Lubricants & functional fluids
 - + Paints & coatings
 - + Plant and vegetable inks
 - + Plastics—derived from renewable feedstocks
 - + Solvents & cleaners—products that meet the Green Seal standards
 - + Sorbents—peat moss, corn cobs, wool-based, cotton-based, etc.

Slide 14

Biobased product categories include:

Adhesives & sealants

Construction materials— such as caulk, insulation, carpet, roofing sealant

Fibers, papers & packaging

Fuel additives

Landscaping materials—such as compost and fertilizer

Lubricants & functional fluids

Paints & coatings

Plant and vegetable inks

Plastics that are derived from renewable feedstocks

Solvents & cleaners—such as products that meet the Green Seal standards

And Sorbents—like peat moss, corn cobs, wool-based, cotton-based, etc.

BIOBASED PRODUCTS - EXAMPLES

- Construction materials can be made from residues of sugar cane, bamboo, corn, and soybeans.
- Disposable cutlery and take-out containers can be made from cornstarch, potato starch, wheat and sugar cane.



- Cleaning chemicals can be made with citrus rinds.
- Clothing, such as socks and t-shirts, can be made from a biopolymer fabric spun from converted corn sugar.

Slide 15

Additional examples of biobased products include:

Construction materials can be made from residues of sugar cane, bamboo, corn, and soybeans.

Disposable cutlery and take-out containers can be made from cornstarch, potato starch, wheat and sugar cane.

Cleaning chemicals can be made with citrus rinds.

Clothing, such as socks and t-shirts, can be made from a biopolymer fabric spun from converted corn sugar.

RECYCLED CONTENT PRODUCTS

Recycled products are materials that have been recovered or diverted from solid waste and have been utilized in place of raw or virgin material in manufacturing a product.



Slide 16

Recycled content products are materials that have been recovered or diverted from the solid waste stream and have been utilized in place of raw or virgin material in manufacturing a product.

RECYCLED CONTENT PRODUCTS

- Products containing recycled content include:
 - + Office supplies—paper, toner cartridges, folders, furniture, etc.
 - + Custodial supplies—tissue/towels, trash containers & bags, etc.
 - + Construction materials—carpet, cement, fiberboard, insulation, latex paint, etc.
 - + Landscaping materials—compost, edging, hoses, lumber, mulch, etc.
 - + Park & recreation products—benches, fencing, etc.
 - + Transportation products—barricades, cones, parking stops, etc.
 - + Vehicular products—coolants, oil, tires, etc.
 - + Miscellaneous—awards, drums, mats, sorbents, signs, etc.

Slide 17

Products containing recycled content include:

Office supplies

Custodial supplies

Construction materials

Landscaping materials

Park & recreation products

Transportation products

Vehicular products

Miscellaneous products—like awards, drums, mats, sorbents and signs.

ALTERNATIVE FUELS/VEHICLES

* Federal sites are required to purchase alternative-fuel vehicles, and operate dual-fueled vehicles on alternative fuels— such as biodiesel, ethanol, methanol, natural gas, etc. Use of these fuels will reduce our dependence on foreign oil, and improve air quality.





Slide 18Alternative Fuels/Vehicles

Federal sites are required to purchase alternative-fuel vehicles, and operate dual-fueled vehicles on alternative fuels— such as biodiesel, ethanol, methanol and natural gas. Use of these fuels will reduce our dependence on foreign oil, and help improve air quality.

ALTERNATIVE FUELS/VEHICLES

- Types of Alternative Fuels:
 - + Biodiesel
 - + Ethanol
 - + Hydrogen
 - + Natural gas
 - + Propane

- Types of Alternative Vehicles:
 - + Flex-fuel
 - + Natural gas
 - + Propane
 - + Hybrid
 - + Plug-in hybrid
 - + Electric
 - + Fuel cell
 - + Diesel

Slide 19

Some types of Alternative Fuels include Biodiesel Ethanol And Natural gas

Some Alternative Vehicles are:

Flex-fuel

Hybrid

Electric

And Diesel

ENERGY-EFFICIENT PRODUCTS



- Products such as lighting, appliances, office equipment, etc. all have energy-efficient options.
- Federal sites are required to give preference to <u>Energy Star</u> qualified or <u>FEMP</u> (Federal Energy Management Program) designated products.
- Need to reduce energy intensity 3% annually (12% FY09), 30% FY15 (baseline year FY2003)
- * Must specify ENERGY STAR®/FEMP criteria in all contracts per DOE Acquisition Letter 2006-09

Slide 20

Energy-Efficient Products

Products such as lighting, appliances and office equipment all have energy-efficient options.

Federal sites are required to give preference to <u>Energy Star</u> qualified or <u>FEMP</u> (Federal Energy Management Program) designated products.

This helps us to meet the energy intensity reduction goals required of all Federal sites. We must also specify ENERGY STAR® or FEMP criteria in all contracts.

ENERGY-EFFICIENT PRODUCTS

- Computers and other electronics are assessed through EPEAT (Electronic Product Environmental Assessment Tool).
- ★ EPEAT reviews not only the energy efficiency, but also the product's recyclable content, use of toxic metals, end of life management, etc.
- Examples of a few criteria in EPEAT standards
 - + Restricts cadmium, hexavalent chromium, lead, mercury
 - + Specifies less material or post-consumer recycled or biobased plastic content
 - + Specifies design for longevity, reuse, take back including packaging
 - + Specifies Energy Star® certified equipment



Slide 21

Computers and other electronics are assessed through <u>EPEAT</u> (Electronic Product Environmental Assessment Tool) for their environmental attributes.

EPEAT reviews not only the energy efficiency, but also the product's recyclable content, use of toxic metals, end of life management, type of packaging used, product longevity and more.

Some examples of EPEAT criteria include:

Restrictions in the use of cadmium, hexavalent chromium, lead, and mercury The use of less material or post-consumer recycled or biobased plastic content Design for longevity, reuse, and take back (including packaging), and Specifies Energy Star® certified equipment

ELECTRONICS STEWARDSHIP



- Fermilab is a <u>Federal Electronics Challenge</u> (FEC) partner.
- * The FEC encourages the purchasing of greener electronics (EPEAT), reducing the impact of electronics use, and managing obsolete electronics in an environmentally safe way.
- Example of how to reduce computer purchases
 - + Buy laptop with docking station instead of desktop and laptop

Slide 22

Fermilab is a Federal Electronics Challenge (FEC) partner.

The FEC encourages the purchasing of greener electronics (EPEAT), reducing the impact of electronics use, and managing obsolete electronics in an environmentally safe way.

An example of how to reduce your computer purchases would be to buy laptop with docking station instead of both a desktop and laptop.

WATER-EFFICIENT PRODUCTS

- Water-efficient products will be marked with the <u>WaterSense</u> symbol, indicating that the product meets EPA's criteria for water efficiency. Waterefficient products include: faucets, toilets and urinals.
- * Federal agencies must reduce water use by 2% annually (using the FY2007 baseline)



Slide 23

Water-efficient products will be marked with the <u>WaterSense</u> symbol, indicating that the product meets EPA's criteria for water efficiency. Water-efficient products include: faucets, toilets and urinals.

Federal agencies must reduce water use by 2% annually (using the FY2007 baseline)

NON-OZONE DEPLETING PRODUCTS

- Ozone depleting substances (ODS) are any substance on EPA's Class I or Class II list of 40 CFR Part 82. There are substitutes available for ozone-depleting products in the following categories:
 - + Adhesives, coatings and inks
 - + Aerosols
 - + Cleaning solvents
 - + Fire suppression & explosion protection
 - + Refrigeration & air conditioning

Slide 24

Ozone depleting substances (ODS) are any substance on EPA's Class I or Class II list included in the regulations protecting the Ozone Layer. There are substitutes available for ozone-depleting products in the following categories:

Adhesives, coatings and inks

Aerosols

Cleaning solvents

Fire suppression & explosion protection products

Refrigeration & air conditioning

NON-OZONE DEPLETING SUBSTANCES

- Alternatives can be found under the EPA's Significant New Alternatives Policy (SNAP) program.
- * Federal sites are prohibited from using Class I and Class II ODS in new equipment, and are also required to repair all leaks in existing refrigerant and air conditioning systems. Class I ODS have already been phased out, while Class II are in the process of being phased out.



Slide 25

Alternatives to ozone depleting substances can be found under the EPA's Significant New Alternatives Policy (SNAP) program.

Federal sites are prohibited from using Class I and Class II ODS in new equipment, and are also required to repair all leaks in existing refrigerant and air conditioning systems. Class I ODS have already been phased out, while Class II are in the process of being phased out.

USE LIFE CYCLE ANALYSES WHEN SELECTING GREEN PRODUCTS BY CONSIDERING:

- Raw materials (Is it a renewable resource?)
- Manufacturing process (Is it energy/water efficient?)
- Packaging (Is it returnable?)
- Distribution/ transportation (Is it locally produced?)

- Operation (Is it energy/water efficient?)
- Maintenance (Is it healthy for staff?)
- Special handling (Is it toxic?)
- Disposal (Is it reusable or at least recyclable?

Slide 26

Life Cycle Analysis is a technique used to assess the environmental impact and potential future impacts associated with a product, process or service. When purchasing a new product, you can conduct your own Life Cycle Analysis by asking yourself the following questions.

Are the raw materials used to make the product from a renewable resource?

Is the manufacturing process energy and/or water efficient?

Is the packaging returnable?

Is the product locally produced?

Is the product itself energy and/or water efficient?

Is the product healthy for staff?

Does the product have any toxic components?

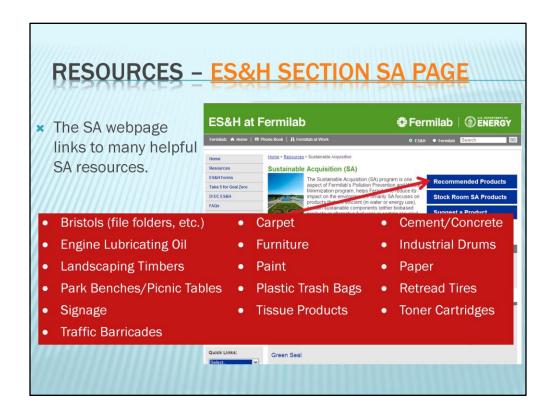
Is the product reusable or recyclable?



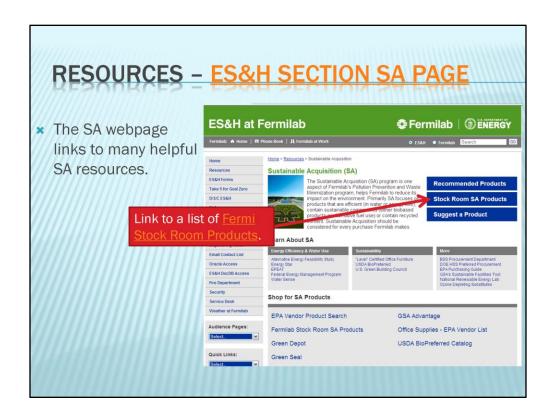
The ES&H at Fermilab Sustainable Acquisition page provides a number of resources for purchasing environmentally preferable products.



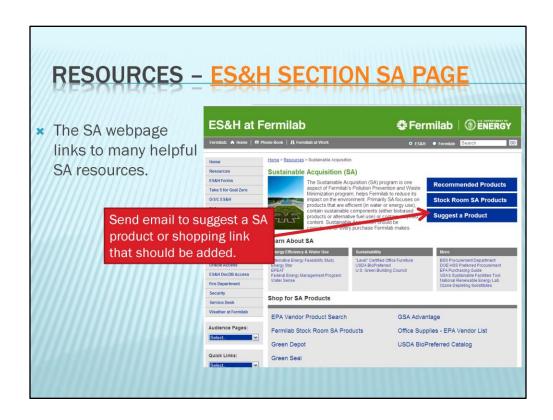
There is a link to some recommended products for certain product categories.



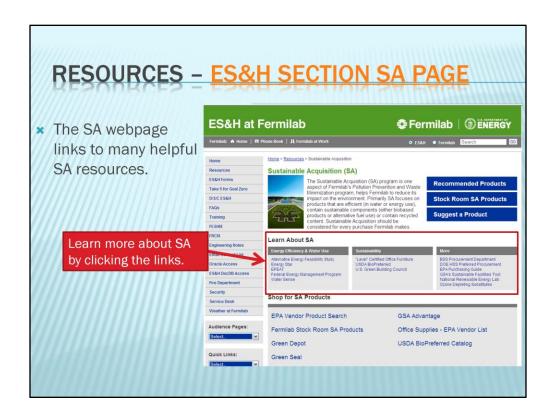
The product categories include those listed here: bristols, carpet, cement, engine lubricants, furniture, industrial drums, landscaping timbers, paint, paper, park benches and picnic tables, plastic trash bags, retread tires, signage, tissue products, toner cartridges, and traffic barricades. The products within these categories meet the SA requirements for recycled content, biobased content, or other SA quality.



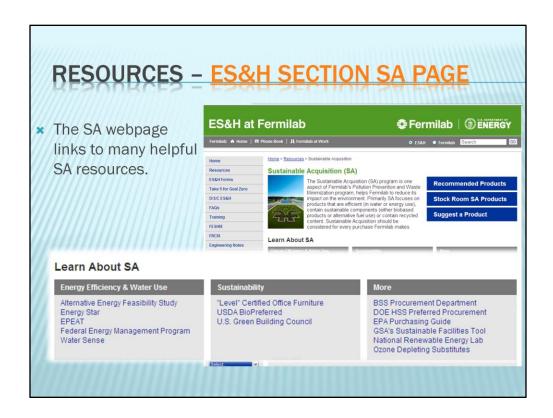
The Fermi stock room provides a number of SA products. Click this link for item descriptions and stock catalog numbers. This list will be updated as products in the stock room are identified as SA or switch over to more sustainable products.



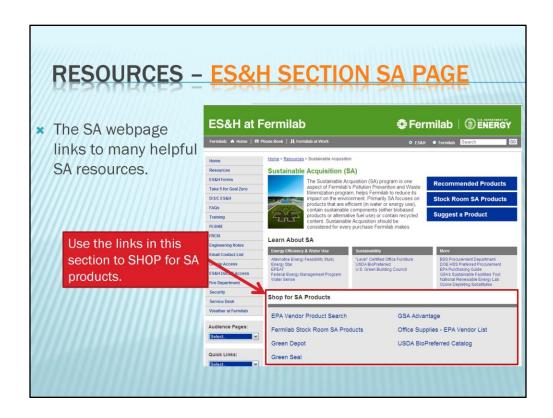
If you've found a product that meets the SA requirements, send us email to add it to the Recommended Products list. We can also add any additional web links to helpful pages.



This section provides numerous links to learn more about Sustainable Acquisition.



You can find information about Energy Star, Water Sense, "level" certified office furniture, DOE's view on Preferred Procurement, and much more.



The "Shop" section offers several links to help you get started with actually purchasing SA products.



The EPA and USDA links provide information about companies that sell the SA products you're looking for. The other links offer direct purchasing from their sites. The list of Fermi Stock Room SA Products has a link here as well.

QUESTIONS

- If you have questions regarding SA, or other environmental topics, contact your D/S/C Environmental Officer:
 - + Barry Fritz, AD/APC
 - + Eric Mieland, ESHS/DI
 - + Greg Mitchell, BS/FI
 - + Amy Pavnica, CD
 - + Rod Walton, FESS
 - + Angela Sands, PD/FCPA/CMS
 - + Bridget Scerini, TD
 - + Mike Bonkalski, WDRS

Slide 29

If you have any questions on the material covered in this training, or any other environmental-related topic, feel free to contact your Division/Section/Center Environmental Officer.